**JOINT FORCES STAFF COLLEGE**

**JOINT ADVANCED WARFIGHTING SCHOOL**


# TAKING CHARGE OF JOINT THEATER LOGISTICS:

# THE CASE FOR A THEATER LOGISTICS COMMAND

**By**

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A paper submitted to the Faculty of the Joint Advanced Warfighting School in partial satisfaction of the requirements of a Master of Science Degree in Joint Campaign Planning and Strategy.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Joint Forces Staff College or the Department of Defense.

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**This thesis explores how the Joint Force Commander best commands and controls the integration of Joint Logistics at the Theater level. Currently, there are two primary methods; through a Command Organization or through the J-4. This paper makes a compelling case for a Joint Theater Logistics Command. The primary focus is to examine the management of common user logistics at the theater level. This paper outlines the legal obligations of each of the Armed Services in providing logistical support to their forces during joint operations and reviews historical examples of logistical support in conflicts from WWII to present. Service and Joint doctrine is reviewed as the framework for current operations. An analysis of two current proposals for Joint Theater Logistics is presented and evaluated. A conclusion and recommendations are included to provide the supporting logic and direction on solving command and control for Joint Theater Logistics through the use of a Joint Force Support Component Command.**

**Direction of Joint Theater Logistics has been managed in a variety of ways throughout American military history. Repeatedly, the American military has in time of crisis, been slow to respond logistically to major or minor conflict and always put together an ad hoc structure to manage Theater level logistics. These ad hoc structures have ultimately successfully sustained US forces but often at a significant cost in lives while we slowly responded with a logistical build up and put together a structure to direct Joint Theater Logistics. The common element to success for each of these logistics management structures was that they were under the directive authority of the Combatant Commander. As we look to the future, however, the rapid tempo of operations and changing nature of the types of warfare we now face will not allow us the luxury of time to adapt our logistics structure in the future. Instead, soldiers? lives depend on getting command and control structure for logistics right the first time out onto the battlefield. While the recommendations primarily address common user logistics and do not address Service unique logistics requirements, the recommendations are the first step to addressing the total challenges in command and control of Joint Logistics for the future force.**

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# ABSTRACT

This thesis explores how the Joint Force Commander best commands and controls the integration of Joint Logistics at the Theater level. Currently, there are two primary methods; through a Command Organization or through the J-4. This paper makes a compelling case for a Joint Theater Logistics Command. The primary focus is to examine the management of common user logistics at the theater level. This paper outlines the legal obligations of each of the Armed Services in providing logistical support to their forces during joint operations and reviews historical examples of logistical support in conflicts from WWII to present. Service and Joint doctrine is reviewed as the framework for current operations. An analysis of two current proposals for Joint Theater Logistics is presented and evaluated. A conclusion and recommendations are included to provide the supporting logic and direction on solving command and control for Joint Theater Logistics through the use of a Joint Force Support Component Command.

Direction of Joint Theater Logistics has been managed in a variety of ways throughout American military history. Repeatedly, the American military has in time of crisis, been slow to respond logistically to major or minor conflict and always put together an ad hoc structure to manage Theater level logistics. These ad hoc structures have ultimately successfully sustained US forces but often at a significant cost in lives while we slowly responded with a logistical build up and put together a structure to direct Joint Theater Logistics. The common element to success for each of these logistics management structures was that they were under the directive authority of the Combatant Commander. As we look to the future, however, the rapid tempo of operations and changing nature of the types of warfare we now face will not allow us the luxury of time to adapt our logistics structure in the future. Instead, soldiers' lives depend on getting command and control structure for logistics right the first time out onto the battlefield. While the recommendations primarily address common user logistics and do not address Service unique logistics requirements, the recommendations are the first step to addressing the total challenges in command and control of Joint Logistics for the future force.

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# INTRODUCTION

**Thesis Question**: How does the Joint Force Commander best command and control the integration of Joint Logistics at the Theater level, through a Command Organization or the J-4?

**Context:** The process of directing Joint Theater Logistics has been managed in a variety of ways throughout American military history. Repeatedly, the American military has, in time of crisis, been slow to respond logistically to major or minor conflict and always put together an ad hoc structure to manage Theater level logistics. These ad hoc structures have ultimately successfully sustained US forces but at a significant cost in lives while we slowly responded with a logistical build up and put together a structure to direct Joint Theater Logistics. The common element to success for each of these logistics management structures was that they were under the directive authority of the Combatant Commander. As we look to the future, however, the rapid tempo of operations and changing nature of the types of warfare we now face will not allow us the luxury of time to adapt our logistics structure in the future. Instead, soldier's lives depend on getting command and control structure for logistics right the first time out onto the battlefield.

**Thesis: Command and control of Joint Logistics is best integrated at the Theater level and must be directed by the Combatant Commander in a Logistics Command Structure at the theater level.**

**Methodology:** The methodology employed for this paper includes several elements. Background information is presented to provide a context of the requirements and responsibilities and legal obligations related to logistical support of joint operation of US forces. A review of historical cases is made to examine how the American military has met the challenge of Joint Theater Logistics in past conflicts and analyze the relative successes and failures of how logistics was accomplished in each conflict. An examination of the current doctrine for logistics both from the Service and Joint perspectives provides the framework for how joint operations are supported today. To provide a way ahead, two current initiatives for Joint Theater Logistics are examined in detail. A conclusion and recommendations are included to provide the supporting logic and direction on how to solve command and control for Joint Theater Logistics.

## BACKGROUND

***"No Matter where we fight in the future, no matter what the circumstances, we will fight as a joint team. We will have fingers on the team that are individual Services, but when it comes to the fight we want the closed, clenched fist of American military power. The days of single Service warfare are gone forever."***

**ADM David E. Jeremiah, USN[1]**

## THE ROAD TO JOINTNESS

Although the United States has conducted joint operations almost since the inception of its Armed Forces, it was only after experiencing the totality of global warfare in the Second World War that we seriously explored how to operate effectively as a joint force. The experience of a global conflict and joint operations and campaigns that spanned entire theaters led to the realization that all future conflicts would be fought as an integrated force with ground, air and sea forces directed by a single joint force commander to achieve the unity of effort necessary for victory. During World War II, out of necessity, we developed an ad hoc command structure consisting of the Joint Chiefs of Staff and a Combined Chiefs of Staff in order to develop and execute joint and combined operations around the globe.[2] It was on this basis of that success that Congress passed the National Security Act of 1947 establishing the Joint Chiefs of Staff and organizing the Armed Forces into a single Department of Defense that still serves to this day as the organizational base structure. The act established clear civilian control through a civilian Secretary with coequal status to the existing Service secretaries of the Army, Navy and Air Force. The act was intended to organize our Armed Forces under a single controlling authority to direct the Services as an "efficient team of land, air and

naval forces."[3] It created the Unified Commands and also codified the Joint Chiefs of Staff and designated their role as the principal advisors to the President and the Secretary of Defense.

What the National Security Act of 1947 failed to achieve, however, was that it did not give adequate directive authority to the Secretary of Defense to achieve the required unity of effort of the Service Secretaries. In 1949, the act was amended to address this shortfall. This was the first of six such amendments that were required to clarify and later redefine the roles and responsibilities within the Department of Defense. The first amendment formally established the Department of Defense (DoD) as a cabinet level post and reduced the Services to military departments that were subordinate to the DoD. Additionally, it gave budgeting responsibilities and authority to the Secretary of Defense over the departments. After intense lobbying in Congress, the Commandant of the Marine Corps was later added to the Joint Chiefs of Staff (JCS) with the same status of the other Service Chiefs. In 1953, the act was amended again to change the executive agents for the Unified Commands from the JCS to the military departments. Five years later, the act was further amended in regards to the Unified Commands. This time, the amendment terminated the executive agent authority of the military departments and instead placed the Unified Commands directly underneath the Secretary of Defense. The amendment also clarified roles and missions for the Services and firmly established the dominance of the Secretary of Defense. It also established the clear chain of command that runs directly from the President and Secretary of Defense to the Commanders in Chief of the Unified Commands (CINCs).[4] (At this time, the Commanders of the Unified

Commands were referred to as Commander in Chief or CINC for their command, i.e. CINCEUCOM or CINCPACOM, this terminology changed in early 2000 by direction of the Secretary of Defense to Regional Combatant Commander (RCC) or Combatant Commander (COCOM). For simplicity, the terminology used will reflect the time period addressed.) The final amendment to the act, in 1978, gave full voting membership in the JCS to the Commandant of the Marine Corps.

The failure of the military to fully implement the Congressional intent of executing the business of military operations in peace and war as a cohesive team effort resulted in Public Law 99-433, the most sweeping legislation to restructure the Department of Defense since WW II that became known as the Goldwater-Nichols Act in 1986. Les Aspin, Chairman of the House Armed Services Committee and later Secretary of Defense, called the legislation "One of the landmark laws of American history. It is probably the greatest sea change in the history of the American military since the Continental Congress created the Continental Army in 1775."[5] The driving logic behind this sweeping reform was a congressional concern that the individual Services were still operating in an independent mode and not responsive to supporting the Unified Commands except through their subordinate Service commands. Codified Title 10 duties of the individual military departments were not synchronized with the direction of the Chairman of the Joint Chiefs of Staff and the Secretary of Defense for joint military operations. The divisive nature of the Services and their natural competition for resources, roles and missions was counter to the concept of centralized civilian control of the military as provided in the law.

This perception of the DOD infighting between Services was reflected in the results of a Senate investigation in 1985 which stated:

> A heightening of civil-military disagreement, an isolation of OSD, a loss of information critical to effective decision making, and most importantly, a political weakening of the Secretary of Defense and his OSD staff. The overall result of interservice logrolling has been a highly undesirable lessening of civilian control of the military.[6]

The Goldwater-Nichols Act of 1986 centralized operational authority through the Chairman of the Joint Chiefs of Staff along with the Secretary of Defense instead of through the Service Chiefs. The Chairman was designated as the principal military adviser to the President, National Security Council and Secretary of Defense. The act clarified responsibilities and authorities given to the Regional CINCs to be able to accomplish their assigned missions. The Goldwater-Nichols Act was focused on balancing the Service specific interests with those of the Joint community to achieve clear authority in mission execution. It was not intended to diminish Service issues as the Services were and still are the most important and primary foundation elements on which DOD rests to this day. The keystone of Goldwater-Nichols was to provide the commensurate authority to those entrusted with planning strategy, directing operations and executing missions for National Security. Thus, it was essential that the Combatant Commands had sufficient command authority over the forces assigned to them. [7]

The Goldwater-Nichols Act requires the assignment of forces under the administrative direction of the Services to the combatant commands based on their geographic area of responsibility, unless otherwise directed by the Secretary of Defense. There are exceptions for individual forces that execute specific missions for the Services

such as recruiting, supply, equipping, maintaining or training.[8] The individual Services still retain US Code Title 10 responsibilities for the deployment, planning, execution, and readiness requirements of their respective units and activities to sustain the Combatant Commander's forces throughout his geographic area of responsibility. The Services must budget and obtain commitment authority to execute their Title 10 responsibilities to recruit, train, maintain and equip their forces in support of the Combatant Commanders.[9] Sustainment of these forces is a mixed responsibility of both the Services and the Combatant Commander in both peacetime and wartime. The Goldwater-Nichols Act and Title 10 prescribe directive authority for logistics to the Combatant Commander upon assignment of forces to his command. This authority includes the ability to issue directives to subordinate commanders, for effective execution of approved operations plans, economy of operations, and prevention or elimination of unnecessary duplication of facilities and overlapping functions among the Service component commands. The seeming conflict of Service responsibilities to sustain the forces they provide to a Combatant Commander and the Combatant Commander's centralized command authority over all forces in his AOR and implied requirement for effective and efficient execution of the mission provides an inherent obstacle for truly Joint Logistics at the Theater Level.[10]

## Conflicting Logistics Responsibilities for a Joint Force

***What I want to avoid is that my supplies should command me.***
***Field Marshal Francois Comte de Guilbert 1770***

***An adequate supply system and stocks of weapons, petrol and ammunition are essential conditions for any army to be able to stand successfully the strain of battle. Before the fighting proper, the battle is fought and decided by the Quartermasters.***
***Field Marshal Erwin Rommel***

It is discouraging to find that while the vital nature of logistics is well recognized throughout the annals of military history, the Armed Forces of the United States are still hamstrung in how to effectively command and control logistics "the lifeblood of war", in today's joint environment. These duplicate systems of administrative control from the Services and the operational command authority of the Combatant Commander (UNAAF vs. Title 10) have built a dichotomy for the logistician in Joint Operations. The Unified Commands and subordinate unified commands possess significant authority to integrate logistical efforts of the Service forces assigned to their geographic command. This type of authority, however, only applies to a unified commander or his subordinate unified commanders. A Joint Task Force Commander does not have this latitude because a Joint Task Force is by definition formed only for a very specific operational requirement and centralized control of logistics is not essential according to Joint Pub 0-2. Unified and subordinate unified commanders must effectively support operations, prioritize resources, synchronize requirements and prevent duplication among the Services. Likewise, the Service's component commands retain their responsibility to support their forces supplied to the Combatant Commander unless otherwise directed or precluded by existing cross-servicing agreements between the Services.[11]

While the Goldwater-Nichols Act attempted to empower the Combatant Commander, for all of its achievement in the operational arena it falls drastically short in the arena of logistics. The Combatant Commander has full authority to organize and employ forces as necessary to accomplish all assigned missions including directive authority for logistics. The directive authority allows him to direct Service component commanders to utilize all logistical assets under their control within the theater in support of the operational plan. In a crisis, or contingency operation, the Combatant Commander can even circumvent the normal logistics processes and direct the transfer of resources and even material between components if required for mission accomplishment. The Combatant Commander is responsible for providing the theater-strategic guidance and priorities for operations. That guidance shapes how the Service components identify their operational requirements to the national industrial base. The Service components work through Service channels to identify their requirements and shortfalls as inputs to the budgeting and acquisition system. (Only recently is there significant movement to change this convoluted process. There are current proposals for COCOMs to identify and prioritize these shortfalls to meet their theater strategic vision.)

Working through the Services in the PPBES results in the Combatant Commander lacking a unified and integrated plan for logistical support across the theater. Instead, he must lash together the individual Service plans into a coordinated support plan that will provide the required operational reach and sustain the tempo of his campaign plans. If he feels that there is a shortfall in capabilities to support his theater planning, it must be resolved between the Combatant Commander and the Service Component Commander.

The Service Component Commander must work through his Service Chief to attempt to rectify the shortfall. There are hugely varying degrees of success in this process that vary with each theater, Service, and the myriad of personalities involved.

So, while Goldwater-Nichols charges the Combatant Commander to make efficient use of all assigned resources and eliminate duplication, he lacks the tools to ensure unity of effort in logistics.[12] He can organize logistical forces as he sees fit to meet his needs but these forces were designed primarily to meet specific requirements of each individual Service, not to function as an integral part of a joint force. Additionally, a point of interest is that the joint operational planning system does include or account for logistics forces in the theater.

The operational planning and execution of joint operations is synchronized by the Joint Force Commander in concert with the Service component commanders who provide all of the required forces that are placed under the command of the Combatant Commander to execute the operation. Meanwhile, the logistics support required to make the joint operation a reality is planned and executed by the Service component commanders. The Combatant Commander's role is to evaluate and coordinate the component commands' logistics support plans and assess their ability to support the planned operation. Instead of the COCOM staff directing required changes, shortfalls are coordinated with the components to resolve.

## RENEWED FOCUS ON JOINT LOGISTICS

> Logistics is traditionally an unglamorous and underappreciated activity. To generalize, when the battle is going well, the strategist and tactician are lionized: it is only when the tanks run out of gas that people go head-hunting for the logisticians.
>
> LTG William G. Pagonis, USA[13]

> My logisticians are a humorless lot…they know if my campaign fails, they are first ones I will slay.
>
> Alexander the Great[14]

The challenge of Joint Logistics planning is readily apparent in the planning process long before we ever execute operations. This dichotomy between logistics and operations is pervasive at both the strategic and operational levels of war. This author contends that the current approach and approved doctrine is woefully inadequate for the expeditionary nature of joint warfare today. Our success in providing logistical support for Joint operations since World War II has been due to herculean efforts by superb logisticians, ad hoc planning and coordination structures, and ad hoc logistics command and control structures that were created "on the fly" to direct and manage joint logistics. In "doing whatever it takes" to ensure effective logistics support we have done so at the expense of unity of effort and instead have produced massive duplication of effort, wasted huge sums of money, and material, and forced ourselves to relearn lessons in joint logistics with each successive operation. This sad pattern of how we approach joint logistics is clearly illustrated in each of the historical cases reviewed in this paper.

Historically, we have been blessed with the time to relearn our joint logistics lessons, create an ad hoc structure to deal with the situation and build up the requisite logistic prowess to deal with our adversary. However, as the nature of joint operations shifts to rapid deployment worldwide to counter a changing threat that is adaptable, agile and engages us in rapid tempo operations, we must shift our logistics doctrine to provide full spectrum support, globally, on a fluid battlefield environment.[15]

The acknowledgement that our joint doctrine does not adequately address how to command and control joint logistics at the theater level was evidenced by the introduction of the Joint Theater Logistics Command and Control (JT LOG $C^2$) Concept nearly ten years ago. That concept that was defined as "…a concept to make clear lines of authority, through a single entity in a joint warfighting environment responsible for logistics support" when it was published in Joint Vision 2010 Focused Logistics: A Joint Logistics Roadmap in 1997.[16]

Why then, nearly a decade later, is this issue still not resolved? There are ample models for the command and control of joint logistics, including the historical models and current proposals addressed in this paper as well as others circulating in the logistics community. We have historical examples of organizations that we created in time of conflict to execute Joint Theater Logistics in every large scale operation since the Second World War. These are readily available to review and extract the useable portions for implementation. Instead, we in the joint community are still relearning history's lessons because logisticians have damned themselves by their own successes. The flexibility,

creativity, and innovation demonstrated by joint logisticians shown in the historical examples of this paper have enabled us to generally find a way to logistically support the fight and ensure success, thus avoiding the harsh spotlight of failure. Logistics is an inherently unglamorous aspect of warfare that garners minor accolades for success but instant notoriety for any shortfall or failure regardless of how minor. By succeeding in the face of enormous challenges, Joint Logistics has fallen into the trap of the old adage, "if it ain't broke, don't fix it."

While perhaps not broken, Joint Logistics is certainly less than it could be in terms of both effectiveness and efficiency. Any loss of either efficiency or effectiveness is magnified in today's contemporary operating environment because the nature of our adversaries has changed significantly, as has the type of warfare we face. While the evolving nature of the threat has changed to require a more agile, mobile, and expeditionary force, the political and economic reality is that the Department of Defense must develop this more capable force without any increase, or very likely a reduction, in fiscal resources to develop, project and sustain such a force in a global effort. These imperatives dictate an unwavering requirement to extend DOD's transformation efforts to the arena of Joint Logistics.

Over this past decade the vision for Focused Logistics has made some great strides in technological innovation and incorporating a variety of techniques and procedures from the commercial world of logistics. The great shortfall, however, has been the lack of progress in developing and implementing an effective ability to

command and control joint logistics to enhance our warfighting capabilities. A coherent and competent methodology of command and control for joint logistics will result in a unity of effort that enables the joint logistician to leverage the technological advancements in logistics and to focus the considerable resources of the United States to successfully support, project and sustain joint forces to achieve the joint commander's vision.

More important than the fiscal imperatives, however, is the ability to logistically sustain our expeditionary forces in the new types of warfare that we are currently engaged. During every conflict since WWII, we've had the luxury of time in which to learn, adapt, and then build a suitable logistics structure to support our forces. In light of the adaptive and evolving nature of our current adversaries, it is unlikely that we will be afforded the same opportunity to fix our logistics; instead the cost of not having it right from the start will likely be the safety and lives of our troops.

# HISTORICAL CASE STUDIES

Unless history can teach us how to look at the future, the history of war is but a bloody romance.

- Major General J. F .C. Fuller

## CONTEXT

Joint logistics has been integral part of joint operations since the birth of the US military and has been demonstrated in every conflict since the Revolutionary War. While joint operations have been executed by the American military since the time of Continental Army, it was not until the Second World War that joint logistics had to span the globe and thus theater level operations were established. Prior to World War II the individual Services of the American military operated on a relatively independent basis and required little integration of effort or coordination of purpose. The size, scale, and global nature of the conflict forced the military to change its focus in terms of strategy, operational warfare, and logistics. American military planning had to shift from planning for defense of the Western Hemisphere (and occasional expeditionary forays) to facing multiple threats and the requirement to conduct offensive operations around the globe on a scale never before imagined and never accomplished since.[17]

The immediacy of the threats to national security in 1941 drove the reorganization of our defense structure resulting in the Joint Chiefs of Staff to achieve unity of effort to coordinate and direct strategic operations on a global scale. Each theater of operation also established a unified command structure for planning and execution of operations.

Additionally, each Service provided their own component commands to provide administrative control and logistical support while subordinating its forces for operational control of the unified theater command. This initial reorganization is the basis for our current command and control structure and still carries with it the conflicting chains of operational and administrative control.

The German Army's motto of "Principles of strategy never transcend common sense" has been reflected in the spirit of improvisation and innovation prevalent in logistics operations throughout American military history. There is a well-known axiom that the American military never follows its own doctrine. Organization for theater logistics has certainly followed this pattern since World War II. In that conflict and in every subsequent conflict where it was found necessary, American commanders from all Services have organized a joint command structure to manage and execute logistics at the Theater level.

## World War II

At the strategic level, the JCS committee system was instituted to coordinate logistics planning for the global war effort focusing on harnessing America's industrial might to supply both US and Allied forces. The committee system brought the capabilities of both the Army and Navy (including their subordinate elements of the Army Air Force and the Marine Corps) together to focus priorities in production, material, and factory utilization. This was the method utilized at the national strategic level to achieve unity of effort. Essentially, this became a system of compromise

between the Services to achieve national logistical goals. Industrial capacity and production was managed at the national level by systems of boards and committees. The lead organization for joint military planning was the Joint Planning Staff (JPS) and the Combined Planning Staff (CPS). These two staffs initially dealt directly with strategic planning and were involved only with logistics as it impacted their military planning in terms of feasibility and supportability. Quickly the Joint Military Transportation Committee (JMTC) consisting of two Army members and two Navy members was tasked to manage transportation policy and allocation. The next big challenge was the prioritization and allocation of merchant shipping. After sorting out competing Service proposals, each of which favored one Service over the other, the President created the War Shipping Administration under the Maritime Commission to allocate shipping for military requirements and ensure that strategic military planning was supported with commercial shipping.[18]

To meet the new demands of operating globally, the War Department was reorganized into three main elements consisting of a ground force, an air force, and a Service of Supply command (SOS). The newly created Service of Supply was designed to manage all aspects of logistics for all US ground forces and had all elements of supply, transportation, distribution, etc… subordinated to this new structure. In reality, this was simply a return to what had worked in the past. During the First World War, in 1918, General John J. Pershing had created a single consolidated organization for logistical support of US forces in Europe. This joint structure, called Services of Supply (SOS) managed logistical support and operations for all American forces in the European

Theater in order to achieve unity of effort, reduce duplication and free his staff of administrative responsibilities.[19] Essentially, the Army stood up the SOS again to provide a single entity to command and control logistical support to forces in the field, using an approach that had already been successful in World War I.

Moving from the strategic to the operational level, there were different solutions instituted to solve command and control of logistics within each theater of operations. In each theater, the challenge was the same one of planning, managing and executing theater level logistics for joint forces in support of the theater commander's vision. It was envisioned that in each theater there would be a theater SOS under a single commander with a joint Army-Navy staff that would be responsive to the theater commander's needs and could interface with the logistic entities at the national level.[20]

In the European Theater, Eisenhower assigned all responsibility to a theater SOS under the command of MG John C.H. Lee. Operations in the European theater were primarily land centric and therefore mostly Service centric with the Army Air Force subordinate to the Army at this time. From the initial basing issues to the build up of forces in England through the invasion and advance through Europe, the SOS had direct command and control of the entire logistic effort to support all US forces. This single chain of command allowed US forces to successfully achieve the critical unity of effort to achieve the mammoth undertaking of supporting a massive military in the field. The many amazing accomplishments of the SOS in Europe, such as the "Red Ball Express"

are legendary and much too great to enumerate here but certainly exemplify the kind of results that can be achieved with a single logistics chain of command.

The Pacific Theater was an entirely different story because of the nature of the theater. The Pacific Theater was primarily a sea centric theater with immense expanses of ocean to master and control with limited land areas on various islands on which we conducted ground operations. As a result of the huge distances involved and the maritime nature of the theater, a different method was used to achieve the same end of unity of effort for logistics.

In March of 1943, a "Basic Logistical Plan" was formally published under the signatures of General Marshall (Army Chief of Staff) and Admiral King (Chief of Naval Operations) with the following purpose:

> The key idea of this plan is to insure coordinated logistical effort and procedure in each command area…involving joint Army-Navy operations in which unity of command and responsibility has been established to the end that combined personnel, equipment, supplies, facilities, shipping and other services of the Army and Navy are most effectively utilized and adequately provided.[21]

The intent of the plan was very clear in that the theater commander determined his requirements and priorities. This plan was to form the basis for all logistical support in the Pacific. Due to the vastness of the Pacific, it was divided into subordinate theaters. Each theater command was to set up a unified supply system in the theater and logistics planning was to be conducted by either a joint logistics planning staff or provided by

joint staff planning conducted by Army and Navy staffs. Details of how to organize for execution was left up to each theater commander.

Admiral Halsey and Admiral Nimitz both chose to initially set up joint logistical coordination boards rather than joint staffs to manage logistics. Neither commander set up a unified Service of Supply command as had General MacArthur. In the beginning, these boards slugged through the prioritization of requirements and resources to very slowly produce a unified list of requirements. The well-established separate Army and Navy supply chains that already existed negated any immediate requirement for joint logistic operations. The effects of the nature of the theater soon dictated differently however. The highly extended lines of communications spanning thousands of miles from the West Coast to Hawaii and points beyond supporting simultaneous operations made maritime support imperative. The isolation and small physical size of the island chains also precluded any type of massive build-ups of depots and logistical facilities.

Prioritization of shipping of cargo, personnel and material became paramount to support forces displaced at such tremendous distances. Control of shipping became an internal Army-Navy battle. The majority of ships were controlled by the Army Transport Service but control of the seas and movement upon them was seen to be Navy task. The solution was the establishment in 1943 of a joint Army-Navy War Shipping Administration (WSA) committee that held the task of coordinating all shipping capacity from the West Coast to the Pacific Theater. While commanders submitted their competing priorities, the WSA in San Francisco would combine the requirements,

allocate the limited resources and by pooling shipping capacity attempted to achieve a unified supply line to the Pacific Theater.[22]

Within the theater itself, there was less competition between Services for several reasons. On island locations, the forces were both intermixed and interdependent for security and sustainment. While port operations were a mix of Army Transport troops and Navy sailors, supply storage areas were often separated by Service use or by type or class of supply. Often storage depots and warehouse operations were in close proximity to ports but inland distribution systems were primarily an Army endeavor. The coordination and necessary interface of these components reduced the Service rivalries within the theater. Additionally, Admiral Nimitz directed the early formation of joint Army-Navy coordination boards and joint logistics staff that established the priorities, requirements, and capabilities planning for supply, transport, distribution, medical support, and all elements of logistics for daily theater sustainment as well as for execution of operational maneuver.[23] Further, the very nature of amphibious operations and the island hopping strategy dictated a close interface and high dependence on inter-Service cooperation and coordination on which the very lives of soldiers, sailors, airmen, and Marines depended.

The successes enjoyed in the logistical support of operations in all theaters were a result of the recognition of the need for joint logistics capabilities to be unified by a single command direction to support the joint commander. Despite the varied approaches taken in each theater, the essence of success was the development of an ad hoc structure

to manage logistics at the theater level for the joint force commander. This logistical command structure was responsive to his direction and vision for the theater campaign independent of Service rivalries or other nuances. Whether through a single organization like the SOS in Europe, or through use of joint logistics staffs, boards, or committees in the Pacific, it was evident that a single chain of command for logistics was essential at the theater level to support joint operations.

## Korea

The invasion of South Korea in June 1950 by the North Korean Army was a complete and utter tactical surprise. Not only had the US intelligence apparatus completely failed to foresee this event, the United States did not have any plan to counter an invasion and both US and Republic of Korea (ROK) forces were in a dismal state of readiness. In the summer of 1950, US forces had been in a drastic drawdown status reducing men and material stocks at incredible rates to meet the demobilization goals demanded by Congress following World War II. The ROK forces had no tanks, no fighter aircraft with trained pilots, no significant artillery or mortars, and no bombers with which to counter the enemy. Their total supply stocks for ammunition were exhausted in a matter of days. The Americans were not in much better shape. The Eighth US Army, headquartered in Japan had been primarily focused on occupation tasks and consisted of four divisions that were essentially little more that constabulary troops

with little valid training, readiness, or equipment. In fact the official history describes them in the following terms:

"…the command was flabby and soft, still hampered by an infectious lassitude, unready to respond swiftly and decisively to a full-scale military emergency."[24]

The initial logistical readiness and support provided bordered on being criminal. Weapons systems on hand were generally less than half the authorized quantity, and readiness of vehicles was likewise less than 50% ready. Supplies were minimal and were mostly excess surplus stocks from World War II. This lack of preparedness and resulting slow response from the national strategic level was the result of underlying planning assumptions that reflected a World War II mentality. It was generally thought that there would be ample time to generate a slow build-up of forces and material and move them to the theater. The belief that the United States had time to harness its industrial might and shift it to war materials in order to respond was severely outdated. The resulting effect of this mentality focused on the "last war" was the withdrawal to the Pusan perimeter and its subsequent valiant defense at the cost of so many lives along the way.

The nature of the Korean theater again demonstrated the severe challenges imposed by geography. In Korea, the strategic supply lines had to span the entire Pacific Ocean and the lines of communication inside the Korean Peninsula were severely restricted by the compartmentalization of the terrain. Strategic movement of troops, equipment, and personnel was primarily by sealift as there was not enough airlift available. The surplus merchant and Liberty ships that still remained from WWII

provided the required lift but could not shorten the lines of communication in terms of either time or distance.

Internal movement on the Korean peninsula was extremely challenging due to the mountainous terrain and the undeveloped nature of the country. Roadways and rail movement were limited to a single major highway and single railway. Overtime these were naturally expanded by US and UN Forces but nonetheless, the immature infrastructure presented a daunting challenge to provide distribution support moving the more than 30 million tons of supplies that were eventually needed to support the war.[25] Further exacerbating the challenges in transportation and distribution was the change in the rapid and fluid pace of movement on the battlefield. Units were highly mobile and changes in unit missions resulted in dramatic changes in both orientation of the fight and locations of units on the battlefield.

This myriad of logistical challenges was applicable across the Services and offered an opportunity to truly develop a joint logistical operation at the theater level. The Joint Chiefs of Staff proposed the creation of a joint staff to coordinate joint logistics forces and interface with the multi-national forces of the UN. However, this opportunity was never capitalized on because General MacArthur, the Theater Commander, thought that the individual Service staffs could adequately plan and support their own forces. While logisticians again succeeded in the face of adversity with innovations such as a rail based “Red Ball Express”, each Service provided logistical support in a largely stovepipe fashion resulting in the expected shortfalls, duplication of effort and excess capacity.

This was evidenced by complaints by the Air Force that their lift capacity wasn't being fully utilized in supporting the fight, due to success of the "Red Ball Express."[26] The lessons of World War II were not absorbed by our joint warfighters in the Korean War. We again were fortunate to have some time to put together our logistical resources and produce the required support for our forces to finally push out of the Pusan perimeter, land at Inchon and drive northward but did so without a single chain of command for logistics. Instead Service logistics stovepipes were the method used at a huge cost in manpower, duplication of services and supply as indicated above. So at the end of the Korean War, American forces never executed joint logistics because of a Service centric mentality that carried over to Vietnam.

## Vietnam

Just over a decade later, American forces were committed to combat in Vietnam. This new theater of operations also contained significant challenges for the joint logistician. In many ways, the situation was similar to Korea in that the strategic lines of communications again stretched over 10,000 miles spanning the entire breadth of the Pacific. There were new challenges as well in Vietnam. In addition to the underdeveloped and austere nature of the country, there were no cleared areas in which to establish logistical support bases. There was not a conventional front or rear area for operations and the non-linear nature of the war also meant that there were not the usual axes of advance or withdrawal to guide the flow and ebb of logistics. This was an inherently different logistical situation than American forces had trained for and for

which their doctrine and training was designed. US troop bases were spread out across the country in base camps out of which American forces conducted their operations.[27]

In early 1965, the United States began to deploy its forces in earnest. Initially starting small with the arrival of the Marines in Da Nang and deployment of the 173rd Airborne Brigade into Tan Son Nhut airport, the build–up of forces reached nearly 200,000 troops in 1965. Troop levels later peaked in excess of 500,000 troops deployed into theater not including a veritable multitude of contractors and civilians supporting the war effort. [28]

The unified command that had overall responsibility for Vietnam was Pacific Command in Hawaii and was also the geographic Combatant Commander. Vietnam was seen essentially as a land based conflict so logistic responsibility was initially assigned to the Army component of Pacific Command, US Army Pacific or USARPAC. To manage the huge and growing logistical requirements to support US forces in Vietnam, US Army Pacific established the 1st Logistical Support Command on 1 April 1965. During the initial stages of support, there were significant problems in supply planning and execution because there had been no significant effort expended in logistical planning.

In fact, initial logistical support was based on World War II planning figures without any adaptation to the situation at hand. Ammunition resupply was accomplished by a push system that tried to anticipate expenditures and push forward preconfigured resupply packages to fill requirements. As a result of the lack of current logistical

planning figures and the changing nature of warfare in Vietnam, the heavy use of massive firepower put units in the position of consuming their ammunition at a rate far exceeding the resupply planning. To aggravate the problem, the resupply packages were based on old WWII and Korean War planning data and therefore arrived with ammunition and parts for pieces of equipment that were no longer in the Army inventory.[29]

The rapid nature of the deployment of forces along with their quick introduction into combat was further complicated by the slow deployment of logistics units and support personnel to establish the enabling supply depots, port and rail facilities and support units critical to meet logistical requirements. By the middle of 1965, control was restored as Headquarters US Army Vietnam was established to maintain command and control.

Although primarily an Army organization, 1st Logistical Command had responsibility for supplying all US forces in Vietnam except the two Marine Divisions and their Air Wings in the I Corps area. This decision was initially based on the Army having the preponderance of forces in the theater and the capability to support all forces with the exception of some unique Service specific requirements. Over the next several years, the capability of 1st Logistical Command matured and the planning capability shifted from an ad hoc basis to a joint staff with liaison planners from other Services. The command's responsibility was expanded in 1968 to include all US forces located in theater.[30] 1st Logistical Command was set up to support four Army Corps, and followed the theater operational organizational basis by providing four subordinate commands to

support each corps and its geographic area as well as common user logistical support for all US forces in the area. The support plan required the Army to provide all logistical support to US Forces (except Service unique requirements) in order to achieve unity of effort for the theater commander.

According to the Commander of 37th Transportation Battalion, his convoys moved anything and everything to a wide variety of units within his area of support regardless of Service and provided movement support to all Services alike as tasked through 1st Logistical Command to support the theater commander's plans. Adjustments of support and shifting priorities were common and frequent as the flow of war changed frequently. From his perspective as a logistical support unit, the unity of effort was reasonably achieved through the centralization of command and control of logistic support units.[31]

However, this unity of effort was detracted from at many levels. The Commander of Pacific Command, (the regional CINC), directed the US Navy to run the port of Da Nang and support the sailors and Marines in the area causing a duplication of effort and supply levels. Additionally, there was an inherent resistance to rely on another Service for any level of support making common user logistics difficult to fully implement. All the tools, procedures and capabilities were present for the Army to provide that common-user support but often the Services would turn to their own supply channels in an attempt to expedite requests. Usually, this did not result in supplies arriving any quicker but instead just created a duplicate request and supply action. The

rotation of personnel and turnover of units also contributed to duplication of orders as the twelve month personnel rotation policy disturbed continuity among supply personnel. The turnover of units meant that as supplies arrived for a unit that had recently departed, the supplies were not usually forwarded to the ordering unit but rather kept by the new unit for contingencies or as trading or bartering material. Due to the increased levels of supply stocks and sheer volume created by this duplication of effort, there was a tremendous waste and excess cost generated.[32]

Another result of this duplication was the massive flow of supplies that came into the theater and overwhelmed the depots. The detailed paperwork flow to track, record and distribute supplies was completely inadequate to keep up with the mountains of supplies arriving in Vietnam. At this time, the move to containerized shipping was just taking hold and was less much less effective than today's container shipping. Most cargo was moved as break-bulk cargo requiring cranes to remove individual pallets from the holds of the ships. Cargo was not palletized in preconfigured unit loads as it is today. Instead, cargo was handled multiple times, downloaded, put into storage, accounted for and reloaded for further shipment by hand with manual tracking. This time consuming method even when coupled with the advantages offered by containerizing cargo resulted in frequent backlogs and loss of accountability of supplies and material because of the unprecedented volume of shipping.[33]

Despite the fact that US Forces had been operating at the theater level with a unified command structure since World War II, there was still no coherent structure to

command and control joint logistics. The starting logistics position for Vietnam was similar to Korea in that initial deployment and resupply was poorly done, and was reactive in nature due to a lack of joint logistical planning. Still, progress was made by the establishment of the 1st Logistical Support Command, although there was still no joint structure to direct logistics for the theater. This action could have provided support for all US forces in theater by being a single point of focus for logistical support along with creating unity of effort.

Unfortunately, the Services failed to capitalize on this opportunity. This was due largely to Service parochialism and a general lack of trust in other Services. This disparity in effort was further degraded by conflicting guidance for another Service to also provide support in a particular region (Da Nang). Even with all of its shortcomings, duplication of effort, and excessive overabundance and waste, the logistical effort in Vietnam did adequately support the warfighter. The critical factor in Vietnam was not logistics and while the lack of political will or pursuit of strategic goals is beyond the scope of this paper, the burning lesson learned from Vietnam in logistics was that although the creation of a central logistics structure started as an ad hoc creation and utilized a lead Service approach, it did recognize the need for a single command and control entity for logistics at the theater level. This need was clearly illuminated regardless of how diluted the intent became when logistical support was executed differently than it was designed.

## Desert Shield/Desert Storm

Although American forces had conducted joint operations under a unified commander since the Second World War, the Armed Services had repeatedly failed to fully meet the intent to capitalize on the synergy to be gained from joint operations as amply demonstrated in US military operations up through the late 1980s. Congress enacted the Goldwater Nichols Act in 1986 to help enforce the legislative intent that the Armed Forces finally give up their Service parochialism and achieve a truly joint method of operation to leverage the considerable capabilities of the Services. One of the driving requirements to successfully operate as a truly joint force is the requirement to develop and institute joint doctrine. It was during the initial development and codification of this proposed doctrine that Joint Operations was thrust to the forefront in the Persian Gulf.

When Saddam Hussein's Iraqi Army invaded Kuwait on August 2, 1990, he set the stage for the first major joint operation for US forces since the passage of the Goldwater Nichols Act. OPERATION DESERT SHIELD & OPERATION DESERT STORM were the first large scale joint operations that put much of the new joint doctrine to a real test. The eventual scale of the conflict, massive generation of forces and execution of major joint operations on a theater level provided a wealth of lessons learned about joint and multinational operations and how to properly execute them.

Central Command or CENTCOM was the combatant command that was responsible for the geographic area of the Persian Gulf. In August, 1990, the theater command was headquartered at MacDill AFB in Tampa, Florida. At that time,

CENTCOM's Service component commands were widely dispersed, and force levels within theater were minimal. The level of surprise achieved by Iraqi forces invading Kuwait stunned the nation. The indicators of imminent attack had been missed allowing Saddam Hussein to sufficiently build and posture his forces to roll unopposed into Kuwait and capture Kuwait City in blitzkrieg fashion.

Not only was CENTCOM surprised by the timing of the attack but there had been no anticipation of the intent to attack at either the operational or strategic level. As a consequence, there was no contingency plan that had been developed to react to this invasion. Without a plan there were no forces planned and no structure designed to command and control what would grow to become a mammoth military beast. The decision to commit US forces to defend Saudi Arabia and subsequently liberate Kuwait came quickly from the President and Secretary of Defense. Less than 96 hours after the invasion, President Bush announced the commitment of US forces and troops began mobilization. With virtually no advanced basing of forces of any type, the largest and fastest deployment of American military power began to project forces halfway around the globe to Saudi Arabia. Lacking any forward presence meant that initially there were no reception forces to conduct reception, staging, and onward integration (RSOI) of arriving forces, nor were there any established bases, airfields, port facilities, depots, or significant military infrastructure. CENTCOM faced a monumental challenge as the OPLAN that was on the shelf had been developed for Iran not Iraq and needed a complete overhaul to address the current situation.

General H. Norman Schwarzkopf was the CENTCOM commander and LTG John Yeosock was the Army component (ARCENT) commander for the theater. The reaction time was virtually nil yet the vision of Schwarzkopf and Yeosock included a massive build up of forces and projection of troops, supplies, and equipment over lines of communication (LOCs) that circled half the globe. One of the crucial early decisions was the recognition at the combatant commander level that robust, powerful logistics support was absolutely essential to mission success. LTG Yeosock pulled an Army logistics expert, MG Gus Pagonis, into the fray in the first several days to act as his central point of contact to develop and negotiate host nation support to fill the gaping capability gap in logistics capacity since there were little or no forward deployed CENTCOM troops in the theater. GEN Schwarzkopf decided early that he wanted to put as many combat troops into theater as quickly as possible to deter Saddam Hussein from invading Saudi Arabia. This meant that the enabling logistical support units that operate air and sea ports, provide supplies, coordinate movement and a myriad of other support tasks would not arrive into theater until later in the movement flow. It was critical to establish and contract for host nation support to fill these capability gaps.

This meant that the early arriving troop units would find no one to receive them, disperse the units to staging areas and they would be basically on their own for support. The lack of initial logistical support is a recurring theme as demonstrated in both Korea and Vietnam in the early stages. Carrying out this decision also meant that deploying units went without their own organic logistic support units and as a result "…many ground combat units found themselves relying on organic supplies and equipment, initial

combat sustainment, host nation support (HNS) and afloat prepositioned supplies. Although many units were largely self-sufficient initially, some combat units began to experience shortages. Both the 82nd Airborne Division and the 24th Infantry Division (Mechanized) relied for a short time on HNS and on Marine Corps (USMC) forces for resupply of food and water." [34]

Although initially deployed to negotiate host nation support contracts, MG Pagonis was the senior logistician on the ground in the theater as units began flowing non-stop into Saudi Arabia and quickly picked up the role of ensuring support for arriving forces. Pagonis was thrust into this role by virtue of rank and the total lack of any other logistical capability in the theater. In addition, both Yeosock and Schwarzkopf quickly saw that the massive airlift of troops and supplies and the sealift of equipment into such an austere environment meant that there must be a single point of contact to control logistics for the theater. Less than two weeks after the invasion of Kuwait, MG Gus Pagonis was designated as the Deputy Commanding General for Logistics. While this covered the ARCENT forces, it was apparent that this same single point of contact for logistics needed to apply across the board to all joint forces as well. Before the end of August, Pagonis was officially tasked as the single source for logistic support of US forces. [35]

The rapid expansion of the theater and continu ing flow of troops and supplies threatened to overwhelm the small logistics planning and coordination cell that MG Pagonis had created to centralize logistical support. To meet the growing need for

logistics coordination and control at the theater level, the 22nd Support Command was activated with MG Pagonis as the Commanding General. This creation on the fly of a Support Command was driven by both the requirement and the ad hoc nature of command relationships at that point. Even Army doctrine called for the establishment of a Theater Army Area Command (TAACOM) to control logistics when there was more than one Army corps involved in an action. The early designation of Pagonis as the Deputy Commanding General for Logistics was coupled by GEN Schwarzkopf designating the Army as the CENTCOM executive agent for most sustainment items for US forces. This meant that MG Pagonis as the Deputy Commanding General for Logistics was responsible for fuel, water, food, transport, ammunition, vehicle support, and all classes of supply for the Army, Air Force, Marine, and Navy forces in theater. Service unique requirements such as specific repair parts remained the responsibility of the owning Service.[36]

Given the ad hoc creation of this organization and its initial limited staffing, its accomplishments are incredible. However, while there was general cooperation between Services and information flow to 22nd SUPCOM on logistics status. The failure to follow a doctrinal model meant that staffs had to learn new procedures to conduct their essential coordination and planning tasks. Joint doctrine as stated in Joint Pub 4-0, requires that peacetime staffs and organizations should be the same ones utilized in wartime to avoid reorganization and resulting loss of effectiveness in time of war.

The 22nd SUPCOM was designated and intended by GEN Schwarzkopf to function as the single logistics command and control organization for all joint forces in the CENTCOM Theater. However, the organization was not designed nor staffed to fully coordinate logistics for joint forces across the entire theater. The 22nd SUPCOM lacked the established procedures, reporting and tracking mechanisms and staff liaisons to adequately monitor and react to logistics issues across the board.

The overall logistical accomplishments of DESERT SHIELD/DESERT STORM are astounding. The requirement for strategic airlift far exceeded the capabilities of Air Mobility Command (AMC) and required the activation of the Civil Reserve Air Fleet (CRAF) stage I and II. The combination of Air Force airlift, contracted carriers and CRAF resulted in nearly 5000 missions flown. In the initial stages of deployment, the first 30 days, the flow into theater included over 38,000 troops, 163, 580 tons of equipment by strategic airlift and over 130,000 wheeled and tracked vehicles. The volume of flow far exceeded the pace of deployment in any other war in the initial stages. This achievement is difficult to fathom but approximates taking all of the registered trucks and busses in the state of Alaska and shipping them halfway around the world.[37]

Additionally, on the sealift side, Military Sealift Command of the Navy delivered over 400,000 tons of cargo and equipment in the first 60 days, escalating to over a million tons in the first 90 days of deployment flow. The command decision to push combat units forward without their supporting logistics units created some new challenges. In order to fill the gap for the required supply support and services normally offered by the

organic logistic units there were over 700,000 contracts activated to support US forces in the theater.[38]

In the relatively short duration of the conflict the statistics outline the amazing logistical sustainment capabilities possessed by US forces collectively. Troops were fed with over 122 million meals. Intratheater transport operation included over 52 million miles logged by drivers hauling supplies around the battlefield. Over 1.3 billion gallons of fuel was transported and distributed to units. Soldiers received over 500 short tons of mail on a daily basis that had to be sorted, distributed, and delivered.[39] These statistics illustrate the staggering capability of joint logistics units. The key is to harness and focus that logistical prowess to a single unity of effort in the theater.

While the 22nd SUPCOM was intended to be the central authority for theater logistics for all forces, the reality was significantly different for a variety of reasons. Essentially, 22nd SUPCOM had superb knowledge about the common user logistics issues and the host nation support issues for which it served as the CENTCOM executive agent. 22nd SUPCOM also had detailed knowledge in its situation reports (SITREPS) about Army units, status, and logistics efforts. On the other hand, the 22nd SUPCOM logistics planners had little situational awareness of logistic actions of the other Services except those activities related to common user logistics. Due to incompatible systems for information flow and tracking of status for units, the 22nd SUPCOM had little real time information on Air Force and Marine units and no data on Naval operations. With little or no in-transit visibility of logistics in the other Services, 22nd SUPCOM's logistics

picture for the theater commander was generally incomplete and consisted as more of a tracking and reporting mechanism rather than a predictive and reactive capability for the joint commander.[40]

The lack of a comprehensive common operational picture (COP) for logistics in the theater meant that the CENTCOM Commander's intent for single source control of logistics was never achieved. There was not a reliable tracking method for monitoring deployment status of units and equipment for an accurate picture of current and projected combat power. Capabilities and capacities were reported in different formats by each of the Services due to Service specific logistic systems and the lack of a standing SOP at the theater level that would have been in force if a Joint Theater Logistics Command existed. Tracking of units, supplies and equipment was managed on a best estimate basis.

Each of the Services was indeed supporting their own forces within theater and without the coordination or direction of the 22nd SUPCOM. The Services did so in order to meet their Title 10 responsibilities to support their forces. The creation of entire airfields and cities by the Air Force Harvest Falcon program and other logistics assets was remarkable. The Navy operated from its forward bases in the UAE and essentially was a self-sustaining entity with little impact on theater logistic resources. Marine units utilized a mix of prepositioned stocks for ships as well as their own organic logistical support units to meet their needs. In fact, a Field Service Support Group was utilized to provide support along ground LOCs to forward deployed units. The shortfall in capacity for inland transportation was filled by a coordinated support effort for Army transport units to move Marine units, equipment and supplies to the dispersed forward locations.[41]

The lack of compatible reporting systems and resulting lack of in transit visibility had several causes and effects. The decisions to put combat power forward first in the deployment planning dictated the later arrival of logistics units. Without proper manning, training and equipment at logistics sites, incomplete manifests, mislabeled cargo, and shortages of inland transportation became the norm and lacking adequate numbers of logisticians to sort out the mess, logistics sites quickly became a nightmare. The end result of frustrated cargo, backlog, and loss of inventory control produced the famed "Iron Mountains" of DESERT SHIELD/DESERT STORM. These choke points and backlogs frustrated the customer units who then either re-ordered the items needed, thus causing additional backlog, or subsequently found a way to work outside the system. As the system backlog grew, it engendered abuses of the priority system for ordering any supplies. Soon, every requisition in theater carried the highest priority. These factors combined to build a lack of trust in the logistic system and drove the theater commander to push to extreme stockage levels. Minimum stockage levels were raised from 30 days to 60 days of supply. While it is criminal to run out of needed supplies in combat, the overload on the supply systems in DESERT SHIELD/STORM resulted in massive demands that clogged our logistics systems. In fact, the overload was so bad that in December of 1990, the backlog of cargo at Dover AFB waiting for transport to the theater was nearly six times the daily airlift capacity. [42] To get a critically needed item, units would often order it numerous times. This lack of trust in the supporting logistics systems forced the stockpiling of supplies to absolutely ensure that the warfighter had everything and anything that might be required for the fight.

A single, unified command to control logistics for the joint theater and set policy and operational support, with adequate systems for tracking and an established working relationship with supported units could provide effective logistical control to the Joint Force Commander. I believe that this was GEN Schwarzkopf's intent in creating 22nd SUPCOM as an ad hoc organization to manage logistics for the theater. While it lacked many things to be an efficient and effective organization to accomplish its mission, on the whole, 22nd SUPCOM accomplished the support mission for the theater with the help of the Services, but most importantly, it set the precedent for a single entity to command and control joint logistics at the theater level.

## Lesser Conflicts

## Somalia: Operation RESTORE HOPE

A different logistics support approach was utilized for joint operations in Somalia. An organization was developed called the Joint Task Force Support Command. This organization was a separate component of the Joint Task Force (JTF) and was co-equal to the Service components. Although intended as a joint logistics organization, its subordinate units were entirely composed of Army logistic support units. Initially, support for the operation was provided by a Marine Force Service Support Group (FSSG) that utilized prepositioned stocks both ashore and from Maritime Prepositioning Force (MPF) ships. In the second phase of the operation, the Joint Task Force Support Command was established from Army logistic support units. In the last phase, as the mission responsibility transferred from US forces, the logistics support also transferred from the JTFSC to the United Nations Somalia II (UNOSOM II).[43]

The designated JTFSC was the 13th Corps Support Command (COSCOM) once the Army units arrived in theater. The JTFSC had responsibility for planning and executing logistical support on both a joint and combined basis though it lacked a joint staff and had only its organic Army staff personnel. Its mission was "to provide logistics and medical support for U. S. Forces, and as directed/required, coalition forces deployed in support of Operation RESTORE HOPE." [44]

The unit makeup consisted of the COSCOM Headquarters staff and then an amalgamation of Army logistic support units placed under it. Despite the lack of joint staffing and organization, the JTFSC was judged an overall success largely based on the individual leadership and professional expertise on the part of its members that allowed it to overcome a lack of joint training. Obviously, early notification of a joint mission provides the time to do logistic estimates, mission planning, training, and coordination with adjacent, subordinate and higher units to facilitate increased effectiveness and communications.

While the structure of an Army COSCOM may not be suitable as a Joint Logistics Command (except for small scale Humanitarian missions), the RESTORE HOPE example brings home again the need for the Joint Force Commander to be able to assign command and control of joint logistics to a single unified commander in order to allow the JFC to focus on the operational mission and tasks, even in a notably smaller area and depth of responsibility.

## Haiti: Operation UPHOLD DEMOCRACY

The desire for a joint logistics command was again apparent in the planning for Operation UPHOLD DEMOCRACY. The support concept for UPHOLD DEMOCRACY was broader in that the vision for a single entity to control logistic support extended beyond support of joint forces but also included other US government agencies as well, such as Defense Logistics Agency and Army Material Command. Atlantic Command (ACOM now Joint Forces Command or JFCOM) was the primary planning architect for UPHOLD DEMOCRACY and attempted to recreate elements of joint logistics support that showed promise in previous conflicts. The ACOM J-4 developed a Joint Logistics Support Command (JLSC) for the Haiti mission that followed the pattern of the highly successful Logistic Support Element (LSE) that was used in the Gulf War and continued in the Logistic Support Command utilized in the Somalia mission. The JLSC was a joint and combined subordinate command of the Multinational Force.

The intent was to develop and deploy a command and control structure to tie together all support activities and coordinate logistic support operations for the JTF Commander. The mission not only included support for all US forces but multinational support and coordination of other DoD support operations (Defense Logistics Agency, Army Material Command, etc…). As the JTF mission shifted to humanitarian relief, the JLSC would also oversee the Logistics Civilian Augmentation Program (LOGCAP) contractor, Brown and Root and then transition logistics support to LOGCAP. The JLSC

was a major subordinate command of the Multi-National Force and was commanded by a Brigadier General.[45]

The JLSC proved itself to be a very capable and flexible organization that was responsive to shifting requirements in the operation. The initial intent for Uphold Democracy was a forced entry operation with JTF 180 from 18th Airborne Corps with its organic combat support and combat service support units. When this became unnecessary and responsibility was shifted to TF 190 (10th Mountain Division), the JLSC was able to absorb and command tactical combat service support units that remained behind as well as non-tactical units from DLA and AMC to integrate them into a complete theater support organization. Adeptly shifting the focus of support from combat units and tactical operations to supporting a multinational force engaged in humanitarian operations, the JLSC proved to be an agile and capable method to provide a single logistical chain of command responsive to the Theater Commander.

# DOCTRINAL REVIEW

## Service Doctrine

Doctrine is the baseline of principles and theory of operation upon which military forces act. These guiding principles not only shape how organizations operate but also the structure that is required to execute the operations that are envisioned. Each of the Services has developed a unique doctrine that serves both their organizational structures and how to execute warfare in the national interest. Each Service doctrine naturally is shaped by and suited to the specific missions and historical experiences of each Service. Thus, the organizational structure of the Army is uniquely suited to the demands of land warfare and likewise its doctrine focused on efficient execution of land warfare. Similarly, the Air Force structure and doctrine is best suited for air warfare, Naval doctrine and structure is suited for sea warfare, and Marine doctrine and structure for both littoral and land warfare. This historical context of doctrine and structure also extends to each Service's doctrine and structure for logistic support of combat forces in each type of warfare.[46]

While our history of fighting in separate stovepipes has driven our Service organizational structures and doctrine, the future is joint warfighting. The implied imperative for the Joint Force Commander is to integrate the capabilities of all Services in warfighting, to include the ability to provide responsive logistical support to our forces. This task requires both an understanding of the unique capabilities of each

Service's logistical structures and how to apply them at the Theater level to support the joint force.

***ARMY LOGISTICS***

Operational Theater level logistics in the Army is accomplished by an Army Theater Support Command (TSC). A TSC is a multifunctional, modular organization employed to support Army forces in a theater of operations. It can be tailored in size but is most often utilized when the operation is multi-divisional or larger. One of its critical capabilities is the ability to open a theater of operations in terms of establishing initial port operations (both sea and air) and establishing the critical command and control communications to track and report logistical movements into the theater. It is the backbone for theater logistics operations for the land component. The ability to structure itself according to the mission allows the TSC to establish, accept and command theater logistics units that receive supplies, personnel, equipment, and units and prepare them for further movement into the theater and integration into their parent units in the process commonly known as Reception, Staging, Onward Movement, and Integration (RSOI).

The Theater Support Command contains organizations that manage the reception and distribution of all material flowing into a theater as well as providing the transportation management and movement control within theater. The TSC also has the capacity to accept coordination cells from external organizations such as Defense Logistics Agency (DLA), contractors, Host Nation support cells, or other liaison cells as required by the situation.[47]

The Theater Support Command functions as a single source command and control authority for all logistics operations for ground forces in a theater of operations. It provides command and control of personnel, finance, supply, transportation, medical, engineer, movement control, and maintenance units across the theater in support of the Army Service Component Command.

The TSC is normally employed to support operations when multiple divisions or corps are engaged in the theater. Its flexible structure is also designed to be able provide common user logistical support to other Services or nations. The TSC is specifically designed to accommodate joint operations and provide operational logistics support to all US forces in a given theater of operations.

Historically, the Army has always had the preponderance of forces located within a forward theater and thus has usually borne the responsibility of providing common user logistic support since the Army has the greatest capacity and capability to support. By its nature of enduring presence, the Army's TSC is structured to support large forces in a forward theater for extended periods of time with long lines of communications. As a result of this doctrinal focus, the Army also has the greatest capacity to support the other Services in a joint environment in a land centric theater of operations.

***NAVAL LOGISTICS***

The maritime operating environment of the Navy is heavily reflected in its logistical support doctrine and support structure. Maritime forces are routinely operated over long deployments around the globe. This employment requires that naval forces are able to operate for extended periods before replenishment is needed. Due to the nature of their operating environment, naval forces generally operate relatively independently from the other Services within a given theater and rarely share logistical support services. The peacetime and wartime operating tempo and environment are relatively similar in terms of logistical support requirements with the exception of perhaps increased fuel and ammunition requirements depending on the nature of the conflict. The switch from a peacetime to wartime operating environment is less dramatic for naval forces than for land or air forces, since naval operations are a continuous means of power projection.

The deployed fleet is directly supported by the Combat Logistics Force (CLF). Both forward deployed ships and underway combat vessels are replenished or sustained by the CLF. Replenishment at sea includes everything from the transfer of bulk fuel, ammunition, supplies, mail, and personnel, to medical evacuation and retrograde cargo for deployed forces that vary in size from a multi-ship Expeditionary Strike Group (ESG) to individual ships and submarines in independent operations. The logistics support forces that constitute the Combat Fleet Logistics forces include a wide variety of capabilities from fleet oilers, to ammunition ships, combat stores ships, and salvage ships.

The organizational command and control is centralized by placing all of these units under the operational control of a single theater logistics task force commander.[48]

In addition to the ships of the Combat Logistics Force (CLF), the Navy utilizes a structure of forward basing called Advanced Logistics Support Sites (ALSS) and Forward Logistics Sites (FLS) to serve as the shipment and transfer nodes for movement of all personnel, material, and equipment transiting in and out of theater for naval forces. An ALSS would be established in an operational theater to serve as the primary logistic support facility with full capability for receiving, storing, issuing and forwarding all personnel, supplies and equipment required within theater. The ALSS would be established at a primary seaport and airfield in support of the theater but outside the immediate zone of combat operations. To serve as the bridging mechanism to extend the logistic support into the main battle area, a forward logistic site (FLS) is normally established to serve as the link between the fighting force and the logistic support chain.[49] The Naval Operational Logistics Command (NOLC) serves to coordinate the requirements for logistic support of naval forces in an operational theater.

While designed to support naval forces, the network of the Combat Logistics Forces (CLF) utilizing the ALSS and FLS sites is essentially a land based structure reliant on land based shore facilities to trans-ship all its sustainment to forces within the theater but without a land network to provide any inland capability for support. This geographic tie to the immediate area around the shore based facilities significantly limits the Navy's ability to support the other Services.

***AIR FORCE LOGISTICS***

In the recent decades, the Air Force has been repeatedly called upon to project power on a global basis. Due to sustained high demand for Air Force units to deploy worldwide on short notice into somewhat austere environments, the Air Force has developed a significant capability to provide flexible, capable, response through its Expeditionary Aerospace Forces or Expeditionary Air Wings. To support this expeditionary force, the Air Force has developed an Agile Combat Support (ACS) system to rapidly move all required sustainment to deployed forces in the field. The ACS is built around a system that is highly reliant on information systems for visibility of requirements, assets, and capabilities. Timely movement of the required supplies requires a responsive streamlined transportation system. "Combat support provides the foundation for and is the enabler of the Air Force core competencies."[50]

At the heart of Air Force logistics is the concept of the Air Force Contingency Supply Squadron (AFCSS). The AFCSS operates a Standard Base Supply System (SBSS) to provide the same functions in supporting deployed forces as a home station base supply does. The AFCSS provides supply, fuels, accounting and supply support to deployed forces in wartime, contingency, natural disaster, or humanitarian relief operations. The degree of support provided by the AFCSS is dependent on the support requested and is tailored to theater and units that it will support. The AFCSS provides limited support for short duration deployments (less than 30 days) and can also provide full supply support to include complete base operations support if the deployment is longer term (over 30 days).[51]

Air Force logisticians have embraced a concept of time-definite resupply. Resupply of deployed forces is initiated upon arrival in theater in order to reduce initial lift requirements. Time-definite resupply and delivery is the basis for all resupply in theater. When a commander requires an item, the system will reach back to the continental United States to locate the item and deliver it when and where it is needed. The driving logic behind this approach is that this reach-back concept will make it possible to deploy with fewer functions and personnel deployed forward to reduce the logistics footprint and vulnerability in the deployed area of operations.

The concept relies on two key concepts that are both essential to success of ACS. First, information technology must be leveraged to have total visibility on the location (accuracy is assumed) of all supplies, and visibility of all requirements and their relative prioritization. Secondly, the system must have the capability to utilize a robust and flexible transportation system to provide rapid responsiveness on a global basis. The intent of the ACS concept is to substitute responsiveness for the deployment of massive inventories and support organizations "just in case." Key to linking both of these elements is the ability to make timely decisions on allocation of resources and knowledge of relative priorities between competing demands. Being an air component driven system, in order to be responsive to the joint force commander (JFC), the priorities for the system should reflect those of the joint commander rather than the air component commander.

The Air Force logistics system has followed a corporate approach that is focused on the exclusive goal of supporting its own warfighting elements. The information systems used can link into other joint information systems like Joint Total Asset Visibility (JTAV) but the focus is strictly on Air Force items. The logistics staffs are structured only to support the Air Force units and lack the capacity to provide support for other forces. Additionally, AEFs lack enough ground transportation to provide any sort of logistical support outside of their air base footprint. By designing their sustainment systems to minimize their footprint and an exclusive focus on supporting only Air Force units, the responsiveness and capacity of the ACS system contributes little to the joint fight.

***MARINE LOGISTICS***

Marine Corps doctrine focuses on logistical support of its own forces. This is a logical extension of its history, operating as a subordinate Service of the Navy with an expeditionary mission of limited duration. The Marine Air Ground Task Force (MAGTF) is the centerpiece of Marine operations. Each MAGTF consists of a command and control element (CCE), a ground combat element (GCE), an aviation combat element (ACE) and a combat service support element (CSSE). The combat service support element is the Field Service Support Group (FSSG) and it provides logistical support to the MAGTF. MAGTFs are organized as either a Marine Expeditionary Force (MEF), Marine Expeditionary Brigade (MEB), Marine Expeditionary Unit (MEU) or a Special Purpose MAGTF (SPMAGTF). Designed for organic self-sutainment for short duration the MEU carries 30 days of supply and the MEF carries 60 days of supply.[52]

At the operational level, the primary logistics organization is the FSSG which is tied directly into the Marine Logistic Command (MLC). The MLC is the overall command organization that sources the FSSGs for MEF support. The MLC can be employed by the Marine Component Commander to provide a single authority for Marine operational logistics. The MLC can conduct force closure operations for RSOI of a MEF and has the capacity to provide the core elements of a theater support system for an emerging theater. The MLC can provide the initial tactical support for a MEF and then build a theater support capability as force modules are added for a maturing theater. The MLC has the capability to pull sustainment from the CONUS base into theater and also to facilitate replenishment and distribution operations within theater for support of Marine forces.

The command and control of the MLC operation is built around a senior commander of either general officer rank or a Colonel. The MLC also has a specialized logistic staff that is trained and experienced in logistics operations. This provides a significantly enhanced capability over that of the naval logistics staffs. While the capabilities of the MLC provide some additional logistical prowess to the theater, the MLC is built specifically to support Marine Corps units and will rely on Army logistic support as the theater matures beyond 60 days. The MLC also requires the Army to provide inland transportation and distribution for a longer duration or extended inland distances.

## Joint Doctrine

Current joint doctrine for logistics is defined by law in US Code Title 10 as to the responsibilities of the Services. The Joint Force Commander's responsibilities are outlined in the Joint Publications and DoD Directives. The journey to jointness since the Goldwater Nichols Act in 1986 has given birth to a plethora of joint publications. There are currently over 100 joint publications today. There are at least twenty that address the issue of Joint Logistics and another sixty plus that focus on Joint Operations. Some of the key publications that directly address logistics doctrine are:

- JP 4-0 Doctrine for Logistic Support of Joint Operations
- JP 4-01 Defense Transportation System
- JP 4-02 Doctrine for Health Service Support in Joint Operations
- JP 4-03 Joint Bulk Petroleum Doctrine
- JP 4-04 Joint Doctrine for Civil Engineering Support
- JP 4-05 Joint Doctrine for Mobilization Planning
- JP 4-07 Joint Doctrine for Common User Logistics
- JP 4-08 Joint Doctrine for Multinational Logistics

The legal responsibilities and direction for logistical support for the Combatant Commanders and the Department of Defense are outlined in Title 10 US Code but are further clarified in DoD Directive 5100.1 which assigns the common functions and support requirements for the Military Departments. It directs each of the Services "to provide logistic support for Service forces, including procurement, distribution, supply, equipment, and maintenance, unless otherwise directed by the Secretary of Defense: to develop doctrines, procedures, tactics, and techniques to be employed by Service forces."

and further tasks them to "provide, as directed, administrative and logistic support of the development and acquisition of the command and control systems of such headquarters."[53] The essence of this directive is that each of the Services supports the Combatant Commander by providing all of the logistic support to the forces assigned to that COCOM during an operation. That logistical support is provided by Service stovepipe organizations and resources that most likely do not belong to the COCOM and execute logistical support under the direction of the Service component commander in accordance with that Service's unique logistics doctrine. As a result, the Services execute independent logistical support of their forces in a theater of operations with no direct relationship to the planning and warfighting vision of the Combatant Commander. To be fair, the logistic support plans of each Service are coordinated to support the Joint Force Commander (JFC) but are in fact independent plans directed by the component commanders.

In joint doctrine, the JFC has directive authority for logistics that allows him to review requirements, establish priorities, allocate resources and reduce any duplication of effort. This directive authority is given to the JFC to "ensure the effective execution of approved operation plans, the effectiveness and economy of the operation, and the prevention or elimination of unnecessary facility duplication and overlapping functions."[54] This directive authority for logistics allows the JFC to shift and reallocate resources and direct any logistics actions as may be necessary to accomplish the mission. However, Joint Publication 4-0, *Doctrine for Logistic Support of Joint Operations*, further specifies that this directive authority in no way relieves the Services of their Title

10 responsibilities to support their forces in the theater. This dichotomy in assignment of responsibilities for logistic support must be resolved in how logistic support is executed. In joint operations, the Services and their component commanders in a theater of operations provide the primary logistic resources (units, material, and facilities) to the JFC and are responsible for the implementation and execution of the actual support operations to the Service forces in the theater. The JFC plans the use of the logistics resources, sets policy and ensures overall support of the operation and uses its directive authority to ensure smooth execution. In other words, the Services make the logistic support happen for troops in the theater, while the JFC monitors the logistic support operations and only intervenes in the event of a catastrophe.

Directive authority for logistics also allows the Joint Force Commander to organize his logistics forces as he sees fit to best provide the command and control for theater logistics. Three general options for organization of logistics are usually employed. The first and most common option is the standard Service stovepipe logistics support approach where all assigned forces are supported by their parent Service. The second option is to supplement the standard Service stovepipe supply channels with common user or cross servicing agreements that help reduce duplication of effort and reduces required resources. Joint, Common or Cross Servicing arrangements designate one Service to provide support to the other Services for a specific commodity such as bulk fuel or water. The difference in these arrangements is in who pays the bill for services rendered. In common servicing, there is no billing for services provided; instead the providing Service absorbs that cost for the entire force. In cross servicing, each

Service utilizing the support reimburses the providing Service. Joint servicing means that the providing Service bills the overall joint force for the costs. Designation of a lead Service to provide support for a particular commodity is normally done on the basis of which Service has the greatest capability to execute the service (most capable) or on the basis of which Service is the greatest consumer of that commodity (dominant user). The third approach to organizing theater logistics has the Joint Force Commander establish a Joint Logistics Component Command. This Joint Logistics Component Command must be created from the logistics units assigned to the theater of operations and is responsible for provision of logistic support to all forces in the theater of operations.[55]

In organizing the theater logistics structure the JFC must also consider existing capabilities and existing Wartime Executive Agent Responsibilities (WEAR) that may already be assigned to the individual Services in the theater of operations. Inter-Service Support Agreements (ISSA) may also already be in existence in a mature theater and specified by the DoD and must be integrated into the overall logistic concept of support for the theater. Regardless of how the JFC organizes the logistics structure, adequate staff supervision is essential to ensure that logistics plans are properly executed to fully support the concept of operations for the theater. The Logistics Staff Officer (J4) of the Combatant Commander is responsible to coordinate all logistical support necessary to support the operation.

# CURRENT INITIATIVES

## Description and Analysis

Focused Logistics is the Department of Defense's concept for providing global sustainment to warfighters operating in the joint environment under Joint Vision 2020, the corporate vision for future joint warfighting. Focused Logistics is defined as "the strategic concept that defines broad joint logistics capabilities that are necessary to deploy, employ, sustain, and re-deploy forces across the full spectrum of operations" in order to "achieve logistics capabilities in support of distributed adaptive operations."[56] There are several initiatives ongoing in DoD to transform joint logistics to move towards this vision of Focused Logistics. Two of these initiatives directly address the central issue of command and control of joint logistics.

Under current doctrine and structure, there is no single entity in charge of the entire logistics process. Joint operations require joint planning and execution support at both the strategic and operational (Combatant Commander) level. Logistics planning, management, and execution is a command function that must be carried out at all levels of war. Unity of effort is an essential principle for success in military operations and logistics is no exception. One approach to this challenge is a proposal that DoD establish a Unified Logistics Command or Agency that is responsible for deployment, sustainment, and re-deployment of forces around the globe on a strategic level. This concept, under study from the DoD Office of Force Transformation, aims to close the gaps and seams that currently exist in the provision of support to the regional Combatant Commanders.

A Unified Logistics Command would provide the infrastructure and organizational architecture for the "Sense and Respond Logistics" intent for Focused Logistics as envisioned in Joint Vision 2020.[57] This Unified Logistics Command would provide the unity of effort by setting and executing joint logistics policies, doctrine and operations at both the strategic and operational levels of war.

A Unified Logistics Command would be tasked in the UCP with the authority to bridge national logistics to tactical logistics – providing integrated "national support" from CONUS or forward basing/staging locations. For example, the DLA and Army components of this unified command would provide: inland class I (subsistence), supply support of United Nations peacekeeping forces, operation of common-user ocean terminals, intermodal container management, transportation engineering for highway movement, common-user land transportation, logistics applications of automated marking and reading symbols, the Military Customs Inspection Program, disposal of waste explosives and munitions, military troop construction, airdrop equipment and systems, power generation equipment and systems, land-based water resources, overland petroleum, oils, and lubricants support, the Military Postal System, the DOD Enemy Prisoners of War and Detainee Program, rear area/base security, and blood support to all forces. Although this proposal has not been fully formalized, and would require significant DoD organizational structure changes as well as legislative and administrative directive changes, some initial experiments moving in that direction are already underway.

Another initiative emerged on September 16, 2003, when the Secretary of Defense designated Commander, United States Transportation Command (TRANSCOM), as DoD's Distribution Process Owner, charged with improving the overall efficiency and interoperability of distribution related activities and to serve as the single entity to direct and supervise execution of the strategic distribution system. This action was a directive aimed at correcting the deficiencies in theater logistics that continued to plague US forces in Operation ENDURING FREEDOM (OEF) and Operation IRAQI FREEDOM (OIF). TRANSCOM in conjunction with the Defense Logistics Agency (DLA) quickly worked to examine the process for distribution from an end to end framework that was titled "factory to foxhole" with the intent of streamlining the process and providing a single controlling agent from the national supply level all the way to the end user on the battlefield. The initial examination revealed gaps and seams in the distribution process between the strategic, operational and tactical levels and proposed some new approaches to address the issues that were found.

There have been some significant successes, such as the creation and employment of Deployment/Distribution Operations Centers (DDOCs) to regional Combatant Commanders. The DDOC is intended to break the barrier between strategic and theater distribution systems. DDOCs have achieved significant success in providing a conduit of information and coordination between the national supplier (DLA) and all elements of the distribution process all the way into the theater. While the DDOCs are owned by TRANSCOM and DLA, they work on solving the priority logistical needs of the theater commander. They are only a staff function that can coordinate, advise and provide

strategic reachback and liaison between the theater and national strategic levels. They do not alleviate any Title 10 Service responsibilities nor subsume the J-4 staff responsibilities, nor can the DDOC command or direct any logistic operations for the theater commander.[58]

Essentially, the DDOCs are a good first step at linking the national strategic and theater operational levels of logistics support for a theater of operations. They are providing significant support to the theater commander but are only the initial steps of a long term effort towards a Unified Logistics Command or Agency. To truly bridge the national strategic and theater operational levels of logistics would require a reconciliation of the divided responsibilities each Service's Title 10 mandated support to their forces and the directive authority that is inherent in the Combatant Commander's responsibilities. To reconcile those conflicting responsibilities and obligations will require a legislative change mandating a new flow of responsibilities and a related change in how DoD organizes to provide logistical support. This solution will require extensive support from all of the Services and a strong level of support in Congress to drive the required legislative changes. Currently, there is insufficient momentum or support both inside DoD and within Congress to make any real headway on this initiative in the foreseeable future.

A major initiative currently underway is the JFCOM Joint Experimental Deployment and Support Capability Concept (JxDS). The JxDS is the most recent evolution of the original Joint Theater Logistics Command and Control (JT LOG $C^2$)

Concept introduced nearly ten years ago. The JT LOG $C^2$ concept was defined as "…a concept to make clear lines of authority, through a single entity in a joint warfighting environment responsible for logistics support" when it was published in Joint Vision 2010 Focused Logistics: A Joint Logistics Roadmap in 1997.[59] Over the past decade, this concept has oscillated between a specific command and control structure and a capabilities concept that is less defined in terms of actual structure. Initially the concept of a joint command for logistics at the theater level has met significant opposition from the Services for reasons of the usual Service parochialism. Additionally the concept is seen by the Services as a manpower requirement that would have to be drawn from the Service components. However, recent poor performance in logistics efforts in both Afghanistan and Iraq, as described in 3rd Infantry Division's after action reports and the recent report from Rand Corporation, have silenced most of the nay-sayers and the concept of a Joint Logistics Component Command at the theater level has been revitalized and regained momentum. The current concept has been covered under several labels such as Joint Logistics Management and in its most recent version from the JCS J-4, the concept is simply called Joint Theater Logistics (JTL) and is addressed in terms of a capability requirement. The latest definition of the concept/capability is as follows:

> Joint Theater Logistics (JTL) addresses shortfalls in the JFC's ability to optimize theater logistics, necessary to enhance overall warfighting capability. This white paper discusses the development of a scalable, tailorable, and flexible JTL capability that will enable a JFC to prioritize, integrate, coordinate, synchronize, and adjudicate joint, interagency, and multinational theater logistics functions, processes and assets, with the resultant effect of increasing joint logistics readiness and the ability to generate and sustain full spectrum theater operations.[60]

In practical terms however, USJFCOM has defined the command and control structure in its JxDS concept for testing and experimentation that provides the capabilities (less technological advances) that are envisioned in the JCS vision for Joint Theater Logistics. As described earlier, JxDS is a Joint Deployment and Support organization (JxDS) that will allow a Combined/Joint Force Commander to exercise operational level Command and Control (C2) over logistics and other support capabilities to achieve improved efficiencies and effectiveness with new ways of creating common user logistics capabilities. It further expands the C/JFC's role to synchronize, network, and fully integrate common user logistics and other common support activities in the AOR by having logistics and other related organizational capabilities under the tasking authority of a single commander. This is done by either collocating/fusing common user logistics management and/or employing traditional command relationships to create common user logistics capabilities in an expeditionary and more decentralized way. Having the right common user logistics information available from the whole force will assist the C/JFC to achieve decision superiority and, when necessary, lethality.

The JxDS concept envisions extending the existing directive authority for logistics to include other support activities through defining a command and control relationship. This new authority termed Directive Authority for Support (DAFS) may include but is not limited to other support activities such as: Host Nation Support (HNS); contracting; postal services; interagency support; and handling of displaced persons (DPs) and enemy prisoners of war (EPW).

Enabled with DAFS, the Combined/Joint Force Commander can:

- Assign priority of support to the main effort as determined by the operational commander. As the operational situation changes, the commander can also responsively shift priority of support to the changing operational environment.

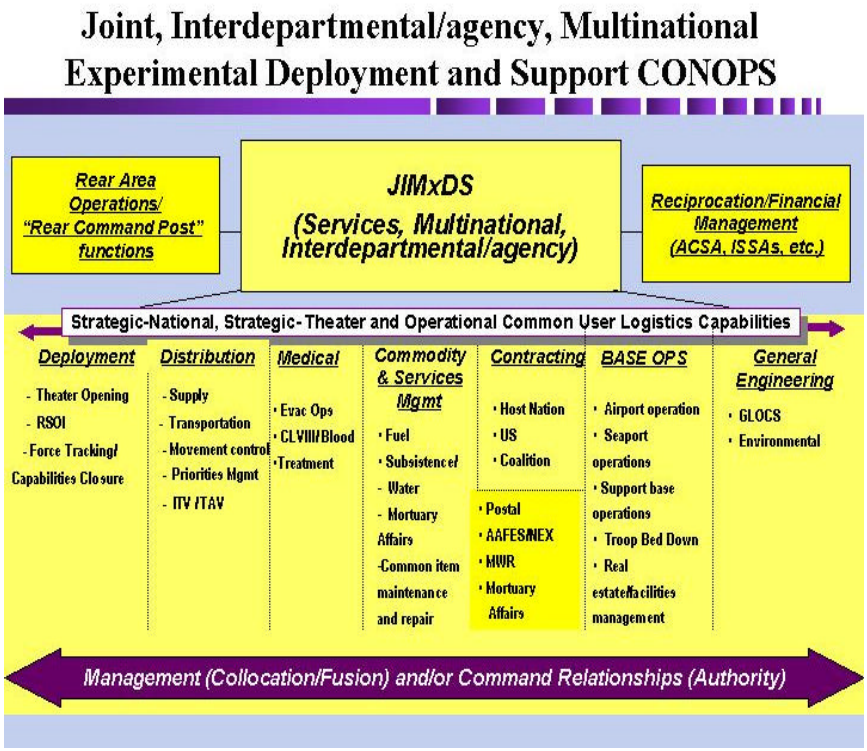
- "Right size" and potentially reduce the support "footprint" by eliminating duplicative Service and national support redundancies.

- Eliminate competition for over committed infrastructure and host nation capabilities, particularly in austere operational areas.

The JxDS proposal includes a flexible, tailorable, and adaptive organizational structure that has a core cadre structure but allows for a modular concept to "plug-in" liaison elements from national strategic logistics organizations, Service component logistic elements, and host nation or coalition logistic entities. The JFC can tailor his command structure appropriately to the nature and complexity of the logistic demands in his theater of operations. As the nature of logistics requirements and capabilities evolves, the JFC can also adapt the structure to the changing environment. Thus, JFCOM's JxDS proposal is improved upon by the Joint Theatre Logistics concept that is now advocated by the Joint Staff J-4.

The new baseline structure is a Combined Joint Force Support Component Command (CJFSCC). The CJFSCC synchronizes and integrates logistics and support activities in the AOR by having logistics and other support related organizations under a single Commander. The CJFSCC will synchronize support operations of all the Combatant Commander's lead Service support responsibilities to the Joint Force. Because it is more flexible and expandable than other competitive concepts, the CJFSCC

can integrate specialized liaison teams from the Army, Air Force, Navy, Marine Corps and other DOD agencies into its support operations structure as required. The chart below provides an illustrative example of possible multifunctional requirements within a given theater.



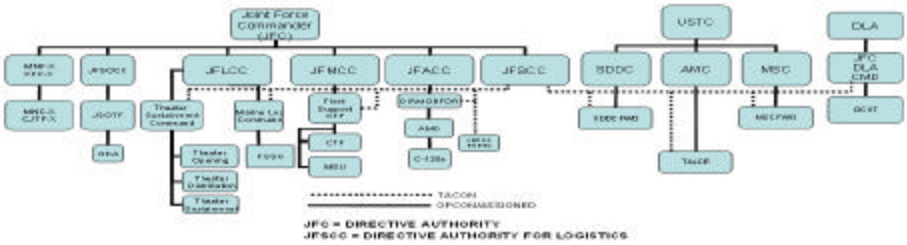

The CJFSCC is a full component on par with the land, air, and maritime components of the Joint Force, under the direction of the Joint Force Commander. The logistics component must be on par with the other functional components. There is no need to specify a rank structure as the size of the JTF dictates the rank of component commanders. Obviously, the commander should be a senior logistician familiar with the

theater and experienced with logistics operations from the tactical to strategic level. The commander must be clearly designated as the logistics commander for the theater. Like the JFACC, the Service with the preponderance of forces/capabilities should source the commander. All Services would contribute personnel to the key staff positions for depth of expertise and breadth of knowledge.

The clear vision that is emerging for the CJFSCC includes several key aspects. The role of the CJFSCC will be to coordinate logistics for the COCOM at the operational level. The CJFSCC does not need to have direct control over the Service's tactical logistics but only the visibility on status and capability. The CJFSCC must have complete knowledge of force flow into the theater. He will be responsible to know location and capabilities of all critical assets that are essential to the COCOM's plans. As the owner for the Time Phased Force Deployment Document (TPFDD), he will be sole decision source to prioritize Service needs, and synchronize resources in accordance with the operational priorities of the Theater Commander. The CJFSCC is the sole conduit for logistical support requirements from outside of the theater and coordinates the requests of the Service components. The CJFSCC will command all operational (theater-level) common-user logistical forces. If this proposal is fully adopted, the logistics environment will improve in a dramatic fashion starting with a unity of command and effort in the total theater logistics structure.

Still, there are many details that have yet to be fully addressed. Services will still administer their forces but the CJFSCC will exercise either OPCON (Operational

Control) or TACON (Tactical Control) of logistics forces from the components. The intent is that the CJFSCC maintains control of logistics at the operational level of war. Tactical level logistics is best left to the direction of the tactical commanders. Theater responsibilities such as distribution of bulk fuel or Class I (subsistence) or joint munitions are operational level tasks and should be under the purview of the CJFSCC.[61] The current proposed command structure is shown below.




**JFSCC Command Relationships and Command Authority**

The described JxDS concept for a Joint Force Support Component Command is currently being utilized in United States Forces Korea (USFK) as a test bed for the concept. The preparation for this experiment has been in progress for well over a year now to be able to execute in the summer of 2006. The current plan has the Initial Operational Capability (IOC) targeted for the summer of 2007 and the Full Operational Capability (FOC) projected for late 2007.[62] This experiment and test of the JxDS concept currently has the full approval and resourcing of the senior DoD leadership and has the

potential to provide a reality based proof of concept. This effort should then finally confirm the solution to command and control of joint logistics at the theater level but the experiment must be kept on scheduled and stay properly resourced. Then, the real work will begin to make the CJFSCC an effective and functioning reality to be applied to all regional Combatant Commands.

## CONCLUSION

**Command and control of Joint Logistics is best integrated at the Theater level and must be directed by the Combatant Commander.** A review of the historical trends for logistical support of joint forces and the legislative direction that dictates responsibilities for logistical support of our Armed Forces clearly shows a compelling need and desire for the Joint Force Commander to have a single source for continuity of effort and command for logistics. Since the Second World War, the warfighting construct for the US military has been defined by joint operations. As we continue to move forward, all operations will be joint in nature and the ability to properly sustain troops in conflict is a moral imperative on which the lives of America's soldiers, sailors, airmen, and marines depend everyday, around the globe.

The record of joint logistics in US military operations clearly cries out for a Joint Logistics Command and Control structure to ensure that our forces are supported efficiently and effectively. As illustrated in the historical evidence, US forces have routinely been ill prepared and ill structured to provide joint logistical support to our fielded forces. In all of our conflicts and joint operations since WWII, logistical

operations were undeniably inefficient and often grossly negligent. Yet, somehow, we were able to prevail over our opponents on the battlefield in every endeavor. Did this mean we were effective but inefficient? Perhaps, but more realistically, what in fact occurred, was that the American fighting man did whatever it took to achieve success. We did this without the proper warfighting equipment, supplies, or sustainment when necessary. The logistical capabilities and accomplishments of US military forces has been nothing less than amazing and is a tribute to our fighting forces.

So, if we were effective but not efficient, does it matter? Why do we still need a joint logistics capability at the operational level? As demonstrated in the evidence presented, the US military succeeded in supporting its forces in conflict but at significant cost in resources and sometimes in lives, such as in the initial retreat in Korea to the Pusan Perimeter. As the evidence clearly shows, peeling back the onion a bit, as we look at each conflict from WWII to current operations in Iraq and Afghanistan, there are several common threads.

In each case reviewed, while US forces were logistically less than fully prepared, the enemy situation and environment allowed us significant time to develop our logistical capabilities. Whether it was WWII, Korea, Vietnam, or all the way up through the recent Persian Gulf operations, US forces enjoyed the benefits of geography and time to set our logistic support. In each and every case, we created an ad hoc structure to manage theater logistics. Regardless of whether we developed boards and committees to coordinate logistics or created a logistics command like the Service of Supply in WWII, or the 1st

Logistics Support Command in Vietnam, or the 22nd Support Command in Desert Storm/Shield, these were in fact newly created structures required to coordinate logistics at the theater level. Each time we stumbled along utilizing the Combatant Commander's J-4 to coordinate the myriad of tasks between the Services to effect joint logistics, the final solution was a new ad hoc structure to effectively manage logistics and provide the Combatant Commander with unity of effort for logistical support of his operations. In evaluating the historical evidence, the most effective solutions were the creation of a single command structure to manage and direct joint logistics operations at the theater level.

The historical review reveals that although in each case, US forces were able to have sufficient time to build a workable although inefficient logistics management capability, it was done at a cost of service member's lives in the initial phases when they lacked the proper logistical support in terms of weapons, ammunition, transport or fuel. When this paradigm is transposed onto the future vision of the types of warfare we will likely face in the future with simultaneous operations globally, in a high optempo and facing an adaptive enemy, the reflected reality is a frightening one. And it is a scenario that demands our attention now in order to develop the solutions for joint logistics to support our forces without the luxury of time to adapt and develop logistics support and without a horrendously unforgivable loss of lives because we didn't have it right at the start of our next conflict.

In light of this compelling demand to fix joint logistics at the operational level, is a Joint Logistics Component Command the best method to command and control logistics at the theater level? To continue down the track of current logistics strategies and doctrine designed by the Services to support their forces in future conflicts does not meet the specific needs of the JFC. Use of the COCOM J4 staff to command and control logistics has likewise been clearly demonstrated as a less than ideal solution for joint warfighting doctrine. The JFC needs a full time logistics command and control organization to function as a centralized logistics support command. The demands of future conflicts will reflect a high operational optempo in dynamic and fluid operating environments that will require an agile, multifunctional logistics capability. The ability of a J4 staff to execute the myriad of complex coordination, monitoring, prioritization and synchronization tasks required is simply lacking in terms of staffing and expertise. A dedicated logistics command and control organization is the clear solution. The ability to deconflict, prioritize, and synchronize logistics operations, resources and capabilities is inherent in the design of the JFSCC. The integration of this type of organization into a Combatant Command will allow the development and refinement of sustainment policies and procedures for both wartime and peacetime operations between the Theater Commander and his subordinate Service components for the theater. The author contends that the best approach now appears to be the Combined Joint Force Support component Command. This provides the ability to “train as you fight” and ensures that the entire joint team is operating from the same playbook and has built the relationships and continuity of effort for logistics between the components and the JFC Logistics Command.

# RECOMMENDATIONS

**"With two thousand years of history behind us, there is no excuse, when fighting, for not fighting well."**

**T.E. Lawrence**

The case is compelling for DoD to fully implement the Joint Force Support Component Command concept as developed by USJFCOM and tested in US Forces Korea (Projected Full Operational Capability – Fall 2007). With this testing process still in progress, the evidence reviewed in this paper makes undeniably clear that the future value of this experiment makes it imperative that DoD, the Joint Staff, and USJFCOM remain fully committed to all aspects of the experiment and the critical analysis for implementation. Too often in our history great innovations and technological investments have faltered for lack of resources and sustained commitment by our leadership. The full application of required resources for implementation, testing, and critical study of the corresponding results is essential to correctly develop the model. The next step to leverage the results of the experiment is to study the application of this model to all other Regional Combatant Commands. The in-depth study and analysis of the results obtained from the entire life cycle of the model from implementation to Full Operational Capability is essential to learn the right lessons and make them applicable to the unique requirements of each geographic theater. These recommendations will allow US forces to effectively and efficiently support joint operations and save the lives of our dedicated men and women in service.

# NOTES

[1] Joint Chiefs of Staff, Joint Publication 1, *Joint Warfare Warfare of the Armed Forces of the United States*, (Washington D.C.: Joint Chiefs of Staff, 14 November 2000), p. III-I.
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